THE CREATION OF AN ENVIRONMENTAL EARTH SONGS CD FOR ENVIRONMENTAL EDUCATORS

BY

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As far back as I can remember, I have always enjoyed spending time in nature. I wanted to emulate John Muir and his passion for saving the environment. When I was 17, I received a scholarship to attend the Safari Club International’s American Wilderness Leadership School in Jackson Hole, Wyoming. That experience led me to pursue a degree at the University of Wisconsin-Stevens Point. While at UWSP, I immersed myself in the philosophies of Human Wellness and Deep Ecology. I then blended those philosophies to create my own philosophy of Environmental Wellness, which I decided to promote through music and education. Even though I graduated with degrees in Biology and Art, environmental education became my passion.

I would like to thank UWSP and all of its offerings for positively influencing many of my life decisions. More specifically, I would like to acknowledge the UWSP Environmental Education Program and my advisor, Dr. Rick Wilke. As well, there are many other leaders at UWSP to whom I would like to express my gratitude including Dr. Dan Sivek, Dr. Dennis Yockers, and Dr. Randy Champeau. Thanks to everyone that helped shape my beliefs and reinforce my passion for environmental education. I hope that the songs I’ve recorded as part of this project inspire you as much as you have inspired me. Peace and Ecology Forever!
Abstract

My masters project is a CD of environmental earth songs that were written and recorded over twenty years of being Captain Ecology, a singing superhero promoter and protector of environmental wellness. When I was a teenage camper at Phantom Lake YMCA Camp in Southeast Wisconsin, I remember how fun it was to watch the camp counselors role play their particular projects at the evening programs. In 1985, I was hired to be the ecology instructor at the North Star Camp for Boys in Hayward, Wisconsin. I promoted my activities as Captain Ecology, and would burst into the lodge wearing my black mask and sheet. Soon thereafter, I realized that I could share my passion for saving the world by writing and singing songs as the Captain. Many hundreds of performances and experiences later, this project is a collection of songs inspired by my life as Captain Ecology.

This CD contains 12 songs, of various environmental topics, which I am hopeful will compliment any environmental educator’s grab bag of supplemental materials. Environmental music can be very effective at enhancing environmental sensitivity and can be a powerful ally in inspiring earthlings to engage in citizen action. Some of the songs are more serious and some are fairly light, but they are all intended to evoke emotions so that environmental education can be more personal.

This text describes the steps that went into the making of this CD. I’ll never stop writing songs and I’ll never stop trying to save the planet. Hopefully, it won’t take another twenty years to record the next CD. Thanks for listening.
Chapter One
The Problem and Its Settings

PROBLEM STATEMENT

The purpose of this project is to create an environmental earth songs CD to help environmental educators infuse environmental songs into their environmental education curriculums as well as promote environmental sensitivity in their students.

SUBPROBLEMS

1. The first subproblem is to record the environmental songs.

2. The second subproblem is to design the CD booklet.

3. The third subproblem is to work with Nashville Record Productions to finalize the CD audio master.

4. The fourth subproblem is to work with Nashville Record Productions to finalize the CD booklet.

5. The fifth subproblem is to design and publish a Captain Ecology Songbook that includes lyrics, chords, and environmental education ideas.

6. The sixth subproblem is to design and implement a Captain Ecology website to help market the environmental earth songs CD to educators.

IMPORTANCE OF THE PROJECT

Music is a universal language that helps students learn more effectively. Environmental songs, which contain lyrics and/or themes about the environment, can enhance an environmental curriculum by reaching students at the cognitive, affective, and psychomotor domains of learning. When used in conjunction with a well-rounded environmental education curriculum, environmental songs can be
effective educational supplements. As stated in the Wisconsin Department of Public Instruction’s Guide to Curriculum Planning in Environmental Education, songs like “Paradise” by John Prine, which expresses concern about the strip mining of coal in Kentucky, can be effective supplements to environmental education curriculums. (Engleson & Yockers, 1994). “Paradise,” a folk song, was the only environmental song, with lyrics, that was mentioned in the guide. This project will contribute additional songs, like “Paradise,” that contain environmental lyrics and/or themes and have value in an environmental education curriculum.

Environmental songs can also relate and apply to the environmental education standards established by the Wisconsin Department of Public Instruction (Appendix).

LIMITATIONS

The first limitation is that the songs on the CD are all from the same artist.

A second limitation is that, while a wide variety of environmental topics are covered within the songs, certain songs will only apply to certain topics.

A third limitation is that some environmental songs will pertain to, or advocate, certain sides of environmental issues.

A fourth limitation is that, even though each environmental song will be produced as best as possible, the music and lyrics and style of each song will not necessarily appeal to each listener in the same way.

DEFINITIONS

EE - abbreviation used for environmental education.

Environmental songs - songs containing lyrics and/or themes about the environment.

Infuse - “the integration of [EE] content and skills into existing courses in a manner as to focus on that content (and/or
skills) without jeopardizing the integrity of the courses themselves” (Ramsey, Hungerford, and Volk, 1992).

The “Mozart Effect” - the ability to perform better on certain intellectual reasoning tasks after listening to music by Mozart.

ASSUMPTIONS

1. The first assumption is that infusion of music enhances learning.

2. A second assumption is that music can impact the cognitive, affective, and psychomotor learning domains of student learners.

3. A third assumption is that teachers will utilize this environmental earth songs CD to incorporate environmental songs into their curriculums.
Chapter Two

Literature Review

EE Infusion

“When we try to pick out anything by itself, we find it hitched to everything else in the universe.”

John Muir

The above quote relates perfectly to environmental education infusion. Just as “everything is connected to everything else,” EE should touch every subject in the curriculum. EE infusion requires “the incorporation of environmental concepts, activities, and examples into existing curricular goals.” (Disinger & Monroe, 1994). EE infusion across disciplines is also the primary approach suggested in the Wisconsin Department of Public Instruction’s Planning Guide To Curriculum In Environmental Education. Specifically, the Wisconsin EE Guide states that, “environmental education should permeate the entire curriculum with every subject at every grade level dealing with the environment in some way.” (Engleson & Yockers, 1994).

It is also important that EE does not take the place of, or interfere with, current curriculum programs. Rather, EE infusion should be “the integration of [EE] content and skills into existing courses in a manner as to focus on that content (and/or skills) without jeopardizing the integrity of the courses themselves.” (Ramsey, Hungerford, and Volk, 1992).

Finally, it should be noted that in schools, where the environment is used as an integrating context for learning, teachers and administrators have found environmentally-based instruction to be both beneficial to their teaching and personally gratifying. (Lieberman & Hoody, 1998).

Music Infusion

“The need for aesthetic experience is a basic characteristic of human life that education at every level is obliged to meet.”

Tanglewood Symposium, 1968
As stated in chapter one, the Wisconsin Department of Public Instruction’s Guide to Curriculum Planning in Environmental Education, suggests that songs like “Paradise” by John Prine, which expresses concern about strip mining of coal in Kentucky, can be effective supplements to environmental education curriculums. (Engleson & Yockers, 1994). The Wisconsin Department of Public Instruction is one of many organizations that promotes the use of music to enhance student learning.

The Peace Corps Information Collection and Exchange, in a 1993 article by Braus and Wood, Environmental Education In The Schools: Creating A Program That Works! echoes the Wisconsin EE guide in its own EE guide by stating, “effective and experienced teachers use a variety of teaching strategies [including music] to accommodate the varied learning styles of their students.” Further, the above Peace Corps authors go on to say that, “when possible, [teachers should] plan a range of activities that touch on all learning domains: cognitive (knowledge), affective (feeling), and psychomotor (physical).” (Peace Corps: Environmental Education In The Schools, 1993). This suggests that environmental songs, especially those with movement, are effective teaching strategies to implement in an environmental education curriculum. In other words, environmental songs can influence the cognitive and affective learning domains, and if they are also interactive, they can affect the psychomotor domain as well.

The Wisconsin Department of Public Instruction’s Curriculum Guide to Planning In Music Education also states that “certain units of work in any discipline [including EE] can be enhanced by the integration of music into the unit.” (Pontious, 1989). The Wisconsin music guide adds that music infusion also helps students to develop aesthetic awareness and sensitivity (both of which are key components of effective EE). Moreover, the Wisconsin music guide offers that music infusion also contributes to a more balanced education and makes school and learning a more pleasant experience. In short, if music infusion helps make learning more enjoyable, students will, in turn, learn more effectively.

Additionally, according to the guiding principles set forth as part of the Tbilisi Declaration, environmental education should “utilize diverse learning environments and a broad array of educational approaches, [including music].” (UNESCO, 1978).

Finally, the latest research regarding the “Mozart Effect” brings music infusion one step further, in that, at least for certain types of music (not necessarily environmental songs), music can actually help people perform better on tasks of
higher reasoning. Specifically, in a study conducted at the University of California Irvine University, students who listened to 10 minutes of Mozart’s “Sonata for 2 Pianos in D Major” performed better on spatial-temporal tasks, which followed their exposure to the music. (Rauscher & Shaw, 1998). Consequently, many organizations have jumped onto this bandwagon of music making people “smarter” and it has brought new light to the value of music infusion.

Whether or not music infusion can result in better performance on tests, it is clear that incorporating music into the classroom can be an effective way to enhance the overall educational experience, and can indeed, be a valuable teaching strategy.

**Summary**

Dave Orleans, a naturalist and earthsinger from southern New Jersey, very eloquently, writes, “I am convinced that well-chosen songs, can be effectively used in an educational context to reinforce the notion that only when we can understand and appreciate the natural worth of our own backyards and neighborhoods will we be motivated to be concerned and committed to helping protect the health of the larger environment.” (Orleans, n. d.).

Further, Delmar Janke, Associate Professor of Education at Texas A&M wrote, “many things can happen as we use music to achieve environmental education goals. We might pick up a point of view never considered before. We might put ourselves in the place of the singer or author and see a beautiful thing never seen before. We might become upset and try to do something to prove that the message was wrong or right. Or we might simply just enjoy learning with music. Shouldn’t all learning be a joy?” (Janke, 1980).

I am hoping that environmental educators will play the songs on this environmental earth songs CD to enhance their environmental education curriculums. I hope that the songs will initiate discussions and debate, as well as, inspire listeners to take a more active role in environmental education. I believe that the songs on this CD will add to the richness and diversity of environmental education for years to come.
Chapter Three
Methodology

This chapter includes a statement of each subproblem and describes the steps taken by the author to address each of the subproblems.

Subproblem One
Record the environmental songs (Fall 2004 - Spring 2006)
  • Select the 12 environmental earth songs
  • Rehearse the songs
  • Record the rhythm tracks via midi and the computer
  • Record the vocal tracks using the Alesis ADAT 8 Track
  • Mix the songs down to DAT masters - listen and make edits as necessary
  • Continue to record until all of the songs are ready for post production

Subproblem Two
Design the CD booklet (Spring 2006)
  • Contact George Ingram to learn what software and formats are necessary
  • Locate a suitable computer to intuitively learn Illustrator 10.0
  • Design, edit, and revise layouts as needed
  • Prepare hardcopy layouts for Nashville printing company

Subproblem Three
Work with Nashville Record Productions to finalize the CD audio master (Spring 2006)
  • Prepare instructions for song fade ins and fade outs and additional notes
  • Backup the DAT song masters
  • Send the DAT masters to Nashville via UPS
  • Evaluate the audio master test CD and respond to Nashville Record Productions accordingly

Subproblem Four
Work with Nashville Record Productions to finalize the CD booklet (Spring 2006)
  • Prepare instructions for CD booklet to be printed correctly
• Send hardcopy of the CD booklet to Nashville Records via U.S. mail
• Send the CD booklet layouts to Nashville Records via internet
• Evaluate the CD booklet proof and respond to Nashville Records
• Purchase printing and production of 1000 CDs

Subproblem Five
Design and print a Captain Ecology Songbook that includes lyrics, chords, and environmental education ideas (Spring 2006)
• Design the songbook with home computer word processing software
• Proofread and edit the songbook as necessary
• Design the songbook cover in color using school computer and software
• Duplicate 100 copies of songbook using local printers
• Fold and staple and store 100 songbooks

Subproblem Six
Design and implement a Captain Ecology website to help market the environmental earth songs CD to educators (Spring 2006)
• Call upon friend, Bridget Mann to organize a captaineology.com domain
• Design rough draft web layout for Bridget to place onto internet
• Send Bridget artwork JPEGs via email
• Pay for all website fees and maintain/edit the website as necessary
Chapter Four

Results

Chapter Four describes the results for each subproblem.

Subproblem One
Record the environmental songs (Fall 2004 - Spring 2006)

When Dr. Wilke approved the environmental earth songs CD project in the summer of 2004, I began to steadily chip away at recording the songs. The software that I used is Master Tracks Pro, which I learned when I was part of the Bananas At Large musical group and worked with Gary Nilsen at his studio, Impact Media, in Amherst, Wisconsin. Master Tracks Pro would be considered ancient by today's recording standards, but it was what I knew, and with a lot of time and patience, I was confident that I would be happy with the end result.

The way I approached the project was to select the various sounds and instrumentation, and then organize them so that each song would have a similar format. My thinking was that it would be less confusing and more efficient. I am sure that my prior preparation saved a lot of time, but in the end, it did not seem so time saving, as the entire project required hundreds and hundreds of hours spent with my recording equipment. Nearly all of my time on the computer was spent after my boys (Elliott, age 6 and Julian, age 2) were asleep.

I recorded the rhythm tracks first with my guitar running through a midi controller so that I could play all of the instruments with my guitar. In other words, every sound that is heard on the recordings was played from my guitar that had a specialized pick-up under the strings. The vibrations of the strings were digitized into computer sequences that I could manipulate later with the mouse of my computer. All of the recordings were recorded and mixed while listening to the music through headphones so that I would not disturb my family late at night.

At every level of the recording project, I would listen to the music and make edits until they were ready for laying down the vocal tracks. The midi portion of the recordings filled up to 16 tracks. The midi was then synced up with my Alesis ADAT digital 8 track recorder. This allowed me to record up to 8 tracks of vocals and mix them in with 16 midi tracks, making a total of 24 tracks.
Once I recorded my vocals, I again would listen to them and evaluate them constantly. This whole process would take weeks for each song. Finally, when I was confident in the way the vocals were recorded, it was time to mix the songs.

Mixing the songs was agonizing and exhilarating at the same time. A typical evening of mixing would consist of waiting for my family to go to sleep, and then do a mixdown. Then, I would listen to the mixdown and decide how I could make the mix better. When I was pleased with the mix, I would record the mix onto a CD and go out to my garage and listen to the mix through my boom box. And this is how it went, sometimes for weeks, until I was convinced that it was as good as I could get it. And even then, I would sometimes second guess my mixes. But, like all artists, at some point, I just had to say . . . it’s done.

All in all, I am very happy with the end product. It took me over two years to complete, but I feel good that I was able to create a work of art that will add to the body of creativity in the world, and hopefully inspire people to help save the planet at the same time.

Subproblem Two
Design the CD booklet (Spring 2006)

When I lived in Wisconsin and worked with the Bananas At Large and the making of “Da Turdy Point Buck” CDs, I taught myself how to use Adobe Pagemaker and Adobe Photoshop. At the time, my home computer was equipped with all of the latest software, and I learned the entire design process - from idea to production - as part of my efforts with the Bananas. However, my priorities in life changed and all of my financial resources are now applied to my family, and my home computer was incapable of handling the desktop publishing of the CD booklet. Therefore, I needed to figure out how I could do the CD booklet layouts at school.

I asked around to see what type of publishing softwares were available and then called George Ingram at Nashville Record Productions for his input. He suggested Quark Express, but my school did not have it. I then asked if Adobe Illustrator would work and he said that it would be acceptable.

However, I did not have any experience with Illustrator so I had to spend a lot of time intuitively figuring things out. I was also able to use the yearbook staff’s scanner and photo manipulating software. It wasn’t exactly what I was familiar with when I worked with Photoshop, but it was close enough.
Unfortunately, I learned later that I should have saved all of my JPEG photos in a CMYK format. The photo software I used, Paint Shop Pro, only made JPEG photos in RGB format.

The CD booklet layout and design took me many hours to complete. It mostly consisted of me riding my bike to school late at night to work in the 7th Grade Social Studies teacher's room. On one particular evening, I was hopping on to my bike with a color rough draft of my booklet when the school sprinklers went off. My artwork was soaked, but I was so tired by then, that I just chalked it up as one of those moments and headed home for bed.

Realizing that my knowledge of Illustrator was extremely limited, I decided to approach the CD layout with simplicity in the design. I learned years ago, while working with the Bananas, to "keep it simple." And just as I am very pleased with the audio recordings, I am very pleased with the booklet design as well.

**Subproblem Three**

*Work with Nashville Record Productions to finalize the CD audio master (Spring 2006)*

In order for the CD master to sound just the way I wanted it, I had to send carefully written notes for George Ingram, so that there would be no delay in the process. On a couple of the songs, I needed George to do a fade in or fade out at exactly the right moment. Since digital recordings exhibit the time of the song in seconds, the fade ins and fade outs can be very precise.

I then proceeded to backup the DAT masters, which involved making a digital clone of my songs onto a second CD. My first intention was to do this at a nearby professional studio, but my own DAT machine was creating static, so I had to do it on my own. I was confident, however, that the backups that I made were acceptable.

I then packaged all of my DAT mixes and instructions and sent them to George at Nashville Record Productions. He suggested that I send them 2 day air so that the chance of the tapes being damaged in transit would be minimized.

The next step was to wait patiently for George to send a test CD for my approval. On May 16, 2006, the test CD arrived and my wife, Peggy, and I listened to it when I arrived home after working at school. It sounded great! The mixdown levels of the individual DAT masters were varied, but George’s mastering mix placed the levels equally so that the transition from one song to the other is
relatively seamless. Listening to the test CD affirmed my choice to go with George and Nashville Records on this project, and the overall sound is one that I can be proud of forever.

**Subproblem Four**
Work with Nashville Record Productions to finalize the CD booklet (Spring 2006)

This subproblem gave me the most grief. This subproblem was all about Murphy’s Law - everything that can go wrong, will go wrong. Over spring break of this past year, I brought the school computer home to work on my CD booklet design at home. I have never copied files to a CD before and when I attempted to download them, something went terribly wrong. All of my layouts became locked up in the temporary files folder of the computer. Therefore, I couldn’t send my files via a CD. I contacted George and he arranged for me to work with a man named Bob Sehl, who would be in charge of getting my CD booklets printed. I corresponded with Bob by emails and by phone for several weeks, and struggled terribly to get my files to him via the internet. It seemed that no matter what I tried, I kept experiencing obstacles. And to make matters worse, Bob assumed that I knew exactly what I was doing and would not give me all of the smaller details of what I was supposed to do. On several occasions, I wanted to pull my hair out and scream because I felt so computer illiterate!

Eventually, after many hours of time spent trying to solve my problems, I succeeded in uploading my files to Bob in Nashville. But then, Bob told George that my disc design layout would not work with his equipment because it required a different set of parameters. At this point, I called Bob and asked him to make the disc design adjustments on his end so that I wouldn’t delay the project even more.

Finally, after weeks and weeks of patiently waiting for the CD booklet proofs to return, they arrived with the test CD on May 16, 2006. There was a minor typo to repair on the CD disc design, but the rest of the layout looked great. I also wanted the booklet to be folded differently, but the type of fold (a map fold) that the printer created looked fine and so I decided not to delay the process further. All in all, I was very glad with the final layout of the CD booklet.

**Subproblem Five**
Design and print a Captain Ecology Songbook that includes lyrics, chords, and environmental education ideas (Spring 2006)
One of the greatest compliments a songwriter can receive is when someone else takes the time to learn one of his/her songs. I decided that it would be a good idea to blend a songbook with environmental education ideas so that an environmental educator could not only play the songs on the CD, but also perform them live as part of certain environmental education topics. For instance, the songbook introduction mentions that the song, “Your Backyard Is My Backyard Too,” would fit nicely into an environmental education unit about nuclear energy. And if it was complimented with a viewing of the scene in Crimson Tide, in which Denzell Washington debates nuclear war, the lesson would be even better.

The design of the songbook required more time spent on the school computer laying out the cover, which would be in color. I then worked with a local island printer to have 100 copies of the cover printed for the first publishing of the songbook. I decided to print the remaining black and white copies on the school photocopy machines. To complete the songbook, I then assembled them one at a time with one of the school’s specialty staplers.

As of now, the songbooks will only be available for purchase through the website. But, I would also like to include one with each Captain Ecology performance in the future, so that the sponsoring environmental educator would be able to perform the songs by him/herself at a later time.

Subproblem Six

Design and implement a Captain Ecology website to help market the environmental earth songs CD to educators (Spring 2006)

Rather than place a permanent address on the CD booklet itself (because I’m hoping that my address will change in the near future), I decided to merely include a website address. The website address is captainecology.com. My friend Bridget Mann, offered to help set up the website for me, and to save on time, I decided to let her give it a try. I know that I would really enjoy laying out the website design in the future, when I have more time, but for now, I am comfortable with the web design remaining very simple.

I sent Bridget a rough draft of the web layout through the mail and sent her five JPEG files via email. My intention is that someone who visits the site will contact me through the website so that I can provide more info about upcoming performances as well as products for sale. As of now, my intention is to sell 3
items, but of course, the sky is the limit with internet selling, and so I'm hoping to expand on the website in the future.
Chapter Five
Conclusion and Recommendations

This chapter includes conclusions and recommendations related to each of the subproblems.

**Subproblem One**
*Record the environmental songs* (Fall 2004 - Spring 2006)

I was hoping that the recording of the songs would go a little faster, but as always happens, life gets in the way. But, don’t get me wrong - I’m very happy that life gets in the way because that means I’m alive to enjoy it. I also learned many years ago, while working with the Bananas At Large, that an honest day’s work is an honest day’s work. My co-Banana, Gary Nilsen would often work so much that he just wasn’t enjoying the process. We sometimes clashed on work ethics because I have always realized that, for me, it’s all about the journey. And so, even though the recording process required about 2 years to complete, I managed to enjoy being a father, and husband, and teacher all along the way. My other passion besides music is fishing. I also needed to go fishing to get my fair dose of therapy throughout the recording process. In fact, whenever someone asks me about my life, I tell them that my life is really quite simple. My life consists of family, music, and fishing.

My wife often encouraged me to record my songs at a professional recording studio. However, much of my creativity happens within the recording process, and I enjoy letting that happen on my time. In the future, I might try her suggestion, but it will require more musicians, time, and money.

**Subproblem Two**
*Design the CD booklet* (Spring 2006)

In the future, I would really like to purchase a state-of-the-art computer with all of the latest publishing software and photo manipulating software. Using the school’s computer for the layout was very time consuming and kept me away from my family. I would much rather have access to the software in the comfort of my
own home, but like the recording process, it will also require more money.

Next time, I will also contact George Ingram and Bob Sehl well ahead of time so that I can design the layouts to meet their requirements better. In other words, before I spend money on a new computer, I will make sure that the software I purchase is exactly what George Ingram and Bob Sehl prefer, so that the process goes even smoother in the future.

Subproblem Three
Work with Nashville Record Productions to finalize the CD audio master (Spring 2006)

I learned through the recording process and working with George Ingram that my mixes need to be mixed at a higher gain strength. I also think that in the future, I will be able to make each of my mixes more consistent so that it will be easier to blend the songs together on the final CD master. Other than that, much of this particular process is out of my hands, and depends on my faith in the talent of the professional mixer.

Subproblem Four
Work with Nashville Record Productions to finalize the CD booklet (Spring 2006)

In the future, I will actually consider working with a different CD booklet printer because Bob Sehl’s personality is, as George describes him, old and crusty. My whole life, I have valued people who are kind and gentle in how they deal with others. Mr. Sehl is abrasive and short. He does good work, but I’m sure there are other printers just as good and much nicer and easier to work with.

Subproblem Five
Design and print a Captain Ecology Songbook that includes lyrics, chords, and environmental education ideas (Spring 2006)

In the future, I would like to gather even more environmental ideas for the songbook. I found that in many cases, activities from Projects WILD, Learning Tree, and WET would have fit nicely with my songs, but I did not want to complicate matters with copyright concerns. I also wanted to leave the ideas fairly vague because I know that most environmental educators only need inspiration to
put together effective lessons. In other words, even if I was to include activities spelled out to the "nth" degree, most of the educators utilizing my lessons would adapt them anyway.

Perhaps, as part of the Captain Ecology website, I will one day be able to post ideas for infusing the songs that come from other environmental educators. For instance, one of the website pages might include a section asking . . . "How EE teachers are using the songs."

Subproblem Six
Design and implement a Captain Ecology website to help market the environmental earth songs CD to educators (Spring 2006)

Eventually, I would like for the Captain Ecology website to be more attractive and include much more information, educational resources, and products.
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Environmental songs can relate and apply to the environmental education standards established by the Wisconsin Department of Public Instruction. The following standards relate and apply to the use of environmental songs:

A.4.4 Communicate their understanding to others in simple terms
A.8.1 Identify environmental issue questions that can be investigated using resources and equipment available
A.8.2 Collect information from a variety of resources, conduct experiments, and develop possible solutions to their investigations
A.8.4 Use critical-thinking strategies to interpret and analyze gathered information
A.8.6 Communicate the results of investigations by using a variety of media and logically defend their answers
A.12.1 Identify questions that require skilled investigation to solve current problems cited in literature, media, or observed through personal observations
A.12.3 Evaluate personal investigations and those of others, critiquing procedures, results, and sources of data and suggest improvements to the investigation
B.8.12 Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture
B.8.22 Identify careers related to natural resources and environmental concerns
B.12.14 Investigate how technological development has influenced human relationships and understanding of the environment
B.12.21 Research the roles of various careers related to natural resource management and other environmental fields
C.12.2 Explain the factors that contribute to the development of individual and societal values
D.4.3 Identify two or more ways to take positive environmental action; eg., posters, letters, and speeches
D.4.5 Explain how they can influence an environmental issue
D.8.5 Explain how personal actions can impact an environmental issue; eg.,
doing volunteer work in conservation
D.12.1 Identify a variety of approaches to environmental issues, evaluate the
consequences of each, and select and defend a position

E.8.1 Formulate a personal plan for environmental stewardship
E.12.1 Articulate their personal beliefs regarding their relationship to the
environment
E.12.3 Take action in regard to environmental issues in the home, school, or
communities

The environmental standards, as they relate to each individual song, are listed
below:

Song #1 – “Your Backyard Is My Backyard Too”

A.4.4 Communicate their understanding to others in simple terms
A.8.1 Identify environmental issue questions that can be investigated using
resources and equipment available
A.8.4 Use critical-thinking strategies to interpret and analyze gathered
information
A.8.6 Communicate the results of investigations by using a variety of media and
logically defend their answers
A.12.1 Identify questions that require skilled investigation to solve current
problems cited in literature, media, or observed through personal
observations

B.8.12 Provide examples of how different cultures use natural resources reflecting
the economic, aesthetic, and other values of that culture
B.12.14 Investigate how technological development has influenced human
relationships and understanding of the environment

C.12.2 Explain the factors that contribute to the development of individual and
societal values
D.4.3 Identify two or more ways to take positive environmental action; eg., posters, letters, and speeches
D.4.5 Explain how they can influence an environmental issue
D.8.5 Explain how personal actions can impact an environmental issue; eg., doing volunteer work in conservation
D.12.1 Identify a variety of approaches to environmental issues, evaluate the consequences of each, and select and defend a position
E.8.1 Formulate a personal plan for environmental stewardship
E.12.1 Articulate their personal beliefs regarding their relationship to the environment
E.12.3 Take action in regard to environmental issues in the home, school, or communities

Song #2 – “Mother Nature and Me”

A.4.4 Communicate their understanding to others in simple terms
A.12.1 Identify questions that require skilled investigation to solve current problems cited in literature, media, or observed through personal observations
B.8.12 Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture
B.12.14 Investigate how technological development has influenced human relationships and understanding of the environment
C.12.2 Explain the factors that contribute to the development of individual and societal values
E.8.1 Formulate a personal plan for environmental stewardship
E.12.1 Articulate their personal beliefs regarding their relationship to the environment
E.12.3 Take action in regard to environmental issues in the home, school, or communities
Song #3 – “Always Keep the Earth In Your Heart”

A.4.4 Communicate their understanding to others in simple terms
A.12.1 Identify questions that require skilled investigation to solve current problems cited in literature, media, or observed through personal observations

B.8.12 Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture
B.12.14 Investigate how technological development has influenced human relationships and understanding of the environment
B.12.21 Research the roles of various careers related to natural resource management and other environmental fields

C.12.2 Explain the factors that contribute to the development of individual and societal values

D.8.5 Explain how personal actions can impact an environmental issue; eg., doing volunteer work in conservation

E.8.1 Formulate a personal plan for environmental stewardship
E.12.1 Articulate their personal beliefs regarding their relationship to the environment
E.12.3 Take action in regard to environmental issues in the home, school, or communities

Song #4 – “Where the Answer Lies”

A.4.4 Communicate their understanding to others in simple terms
A.8.4 Use critical-thinking strategies to interpret and analyze gathered information
A.8.6 Communicate the results of investigations by using a variety of media and logically defend their answers
A.12.1 Identify questions that require skilled investigation to solve current problems cited in literature, media, or observed through personal
observations

B.8.12 Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

B.12.14 Investigate how technological development has influenced human relationships and understanding of the environment

C.12.2 Explain the factors that contribute to the development of individual and societal values

D.4.3 Identify two or more ways to take positive environmental action; eg., posters, letters, and speeches

D.4.5 Explain how they can influence an environmental issue

D.8.5 Explain how personal actions can impact an environmental issue; eg., doing volunteer work in conservation

E.8.1 Formulate a personal plan for environmental stewardship

E.12.1 Articulate their personal beliefs regarding their relationship to the environment

E.12.3 Take action in regard to environmental issues in the home, school, or communities

Song #5 – “When You’re Free the Whole World Sings”

A.4.4 Communicate their understanding to others in simple terms

B.8.12 Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

B.8.22 Identify careers related to natural resources and environmental concerns

B.12.14 Investigate how technological development has influenced human relationships and understanding of the environment

B.12.21 Research the roles of various careers related to natural resource management and other environmental fields

C.12.2 Explain the factors that contribute to the development of individual and
societal values

D.4.3 Identify two or more ways to take positive environmental action; eg., posters, letters, and speeches

D.4.5 Explain how they can influence an environmental issue

D.8.5 Explain how personal actions can impact an environmental issue; eg., doing volunteer work in conservation

E.8.1 Formulate a personal plan for environmental stewardship

E.12.1 Articulate their personal beliefs regarding their relationship to the environment

E.12.3 Take action in regard to environmental issues in the home, school, or communities

Song #6 – “The Everglades Song”

A.4.4 Communicate their understanding to others in simple terms

A.8.1 Identify environmental issue questions that can be investigated using resources and equipment available

A.8.2 Collect information from a variety of resources, conduct experiments, and develop possible solutions to their investigations

A.8.4 Use critical-thinking strategies to interpret and analyze gathered information

A.8.6 Communicate the results of investigations by using a variety of media and logically defend their answers

A.12.1 Identify questions that require skilled investigation to solve current problems cited in literature, media, or observed through personal observations

A.12.3 Evaluate personal investigations and those of others, critiquing procedures, results, and sources of data and suggest improvements to the investigation

B.8.12 Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

B.8.22 Identify careers related to natural resources and environmental concerns

B.12.14 Investigate how technological development has influenced human
Research the roles of various careers related to natural resource management and other environmental fields

Explain the factors that contribute to the development of individual and societal values

Identify two or more ways to take positive environmental action; eg., posters, letters, and speeches

Explain how they can influence an environmental issue

Explain how personal actions can impact an environmental issue; eg., doing volunteer work in conservation

Identify a variety of approaches to environmental issues, evaluate the consequences of each, and select and defend a position

Formulate a personal plan for environmental stewardship

Articulate their personal beliefs regarding their relationship to the environment

Take action in regard to environmental issues in the home, school, or communities

Communicate their understanding to others in simple terms

Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

Identify careers related to natural resources and environmental concerns

Investigate how technological development has influenced human relationships and understanding of the environment

Research the roles of various careers related to natural resource management and other environmental fields

Explain the factors that contribute to the development of individual and societal values

Song #7 – “The Homer Alaska Song”
Formulate a personal plan for environmental stewardship
Articulate their personal beliefs regarding their relationship to the environment
Take action in regard to environmental issues in the home, school, or communities

Song #8 – “Nature of the World”

Communicate their understanding to others in simple terms
Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture
Explain the factors that contribute to the development of individual and societal values

Formulate a personal plan for environmental stewardship
Articulate their personal beliefs regarding their relationship to the environment
Take action in regard to environmental issues in the home, school, or communities

Song #9 – “The Recycle Rap”

Communicate their understanding to others in simple terms
Identify environmental issue questions that can be investigated using resources and equipment available
Collect information from a variety of resources, conduct experiments, and develop possible solutions to their investigations
Use critical-thinking strategies to interpret and analyze gathered information
Communicate the results of investigations by using a variety of media and
logically defend their answers

B.8.12 Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

B.8.22 Identify careers related to natural resources and environmental concerns

B.12.14 Investigate how technological development has influenced human relationships and understanding of the environment

B.12.21 Research the roles of various careers related to natural resource management and other environmental fields

C.12.2 Explain the factors that contribute to the development of individual and societal values

D.4.3 Identify two or more ways to take positive environmental action; eg., posters, letters, and speeches

D.4.5 Explain how they can influence an environmental issue

D.8.5 Explain how personal actions can impact an environmental issue; eg., doing volunteer work in conservation

D.12.1 Identify a variety of approaches to environmental issues, evaluate the consequences of each, and select and defend a position

E.8.1 Formulate a personal plan for environmental stewardship

E.12.1 Articulate their personal beliefs regarding their relationship to the environment

E.12.3 Take action in regard to environmental issues in the home, school, or communities

Song #10 – “Trippin’ on Acid Rain”

A.4.4 Communicate their understanding to others in simple terms

A.8.1 Identify environmental issue questions that can be investigated using resources and equipment available

A.8.2 Collect information from a variety of resources, conduct experiments, and develop possible solutions to their investigations

A.8.4 Use critical-thinking strategies to interpret and analyze gathered
Communicate the results of investigations by using a variety of media and logically defend their answers

Identify questions that require skilled investigation to solve current problems cited in literature, media, or observed through personal observations

Evaluate personal investigations and those of others, critiquing procedures, results, and sources of data and suggest improvements to the investigation

Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

Identify careers related to natural resources and environmental concerns

Investigate how technological development has influenced human relationships and understanding of the environment

Research the roles of various careers related to natural resource management and other environmental fields

Explain the factors that contribute to the development of individual and societal values

Identify two or more ways to take positive environmental action; eg., posters, letters, and speeches

Explain how they can influence an environmental issue

Explain how personal actions can impact an environmental issue; eg., doing volunteer work in conservation

Identify a variety of approaches to environmental issues, evaluate the consequences of each, and select and defend a position

Formulate a personal plan for environmental stewardship

Articulate their personal beliefs regarding their relationship to the environment

Take action in regard to environmental issues in the home, school, or communities

Song #11 – “In the 21st Century”
Communicate their understanding to others in simple terms

Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

Explain the factors that contribute to the development of individual and societal values

Formulate a personal plan for environmental stewardship

Articulate their personal beliefs regarding their relationship to the environment

Take action in regard to environmental issues in the home, school, or communities

Song #12 – “Enjoy Life”

Communicate their understanding to others in simple terms

Provide examples of how different cultures use natural resources reflecting the economic, aesthetic, and other values of that culture

Explain the factors that contribute to the development of individual and societal values

Formulate a personal plan for environmental stewardship

Articulate their personal beliefs regarding their relationship to the environment

Take action in regard to environmental issues in the home, school, or communities